

Notice of Allowability

Application No.

09/921,945

Examiner

Chirag G. Shah

Applicant(s)

BELK ET AL.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/23/06.
2. ☒ The allowed claim(s) is/are 1-31, 33-34, 36-40, 42-55, 57-58; renumbered 1-54 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Fogg on 4/14/06.

The application has been amended as follows:

Claim 33, line 3, after the word, "removing", "RTS" has been replaced with "residual time stamp (RTS)".

Claim 34, line 3, after the words, "removing", "RTS" has been replaced with "residual time stamp (RTS)".

Reasons For Allowance

2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, Prior Art fails to disclose of determining a majority count and a minority count, based on the RTS values, for each of a plurality of time periods and using the majority and minority counts for the plurality of time periods to calculate a control value to set the frequency of a service clock at the destination node for use in receiving data packets in combination with other limitations set forth in the claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

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Regarding claim 14, Prior Art fails to disclose of using the RTS values over a plurality of periods to set a direct digital synthesis circuit to act as the service clock for the destination node with a frequency that is substantially synchronized with a service clock at the source node in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 24, Prior Art fails to disclose a counting circuit that determines the majority and minority counts based on the RTS values over a plurality of time periods, and uses the majority and minority counts over the plurality of periods to generate a number to set the frequency of the direct digital synthesis circuit in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 33, Prior Art fails to disclose a method for service clock recovery of using the removed RTS values over a plurality of time periods to set the service clock for the destination clock and using the RTS values comprising using majority and minority counts based on RTS values over at least two time periods in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 34, Prior Art fails to disclose using the removed RTS values comprises calculating a plurality of control signal based on RTS values received over a plurality of time periods and selecting one of the control signal to control the local service clock in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

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Regarding claim 36, Prior Art fails to disclose using the majority and minority counts from the counting circuit over the plurality of time periods to generate a number to set the frequency of the direct digital synthesis circuit in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 42, Prior Art fails to disclose a microcontroller, responsive to the counting circuit, wherein the microcontroller uses the at least two counts from the counting circuit for the plurality of time periods to generate at least two control values to set the frequency of the direct digital synthesis circuit, selects one of the at least two control values, and provides the selected control value to the direct digital synthesis circuit in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 43, Prior Art fails to disclose selectively using the relative maximum fill levels for the plurality of time periods to control a frequency of the locally generated clock to control the rate at which data is read out of the buffer in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 49, Prior Art fails to disclose a processor coupled to the peak fill level detector, wherein the processor receives the relative peak fill levels from the register and uses the relative peak fill levels for the plurality of time periods to generate a control value that selectively adjusts the variable oscillator in combination with other limitations set forth in the

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respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 57, Prior Art fails to disclose a method for adaptive clock recovery wherein controlling the frequency of the recovered clock signal comprises determining a rate of change in the relative maximum fill level for each time period and calculating a numerical value for a numerically controlled oscillator to compensate for the rate of change for a selected time period in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Regarding claim 58, Prior Art fails to disclose a method for adaptive clock recovery wherein controlling the frequency of the recovered clock signal comprises comparing calculations for a control value based on the relative maximum fill level for the plurality of time periods and selecting one of the calculated control values generated from the relative maximum fill level from one of the time periods in combination with other limitations set forth in the respective claims and based on approved Terminal Disclaimer to obviate a double patenting rejections.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7682. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs

April 14, 2006

A handwritten signature in black ink, appearing to read 'Chirag Shah', is written over a horizontal line.

Chirag Shah
Patent Examiner, Division 2616